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NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 04/16/2009

Mark P. Levy Thompson Hine LLP P.O. Box 8801 Dayton, OH 45401-8801 EXAMINER ROY, BAISAKHI

ART UNIT PAPER NUMBER

3737 DATE MAILED: 04/16/2009

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONTERMATION NO.

 10/21,034
 11/24/2003
 T. Douglas Mast
 END-5042USCIP
 4797

TITLE OF INVENTION: METHOD FOR MONITORING OF MEDICAL TREATMENT USING PULSE-ECHO ULTRASOUND

 APPLN. TYPE
 SMALL ENTITY
 ISSUE FEE DUE
 PUBLICATION FEE DUE
 PREV. PAID ISSUE FEE
 TOTAL FEE(s) DUE
 DATE DUE

 nonprovisional
 NO
 \$1510
 \$300
 \$0
 \$1810
 07/16/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE DEE and DURI ICATION DEE (if required). Blocks 1 through 5 should be completed where

maintenance fee notifica	tions.	ng the Patent, advance of nerwise in Block 1, by (lock 1 for any change of address)	rders and notification of a specifying a new corre	e: A certificate of	mailin	g can only be used for	r domestic ma	ailings of the
	pap	Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.						
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Mark P. Levy Thompson Hine P.O. Box 8801		1 he Stat add tran	reby certify that thes Postal Service of ressed to the Mai ismitted to the USF	us Fee(with sul I Stop TO (57	s) Transmittal is being ficient postage for firs ISSUE FEE address 1) 273-2885, on the d	g deposited wit st class mail in above, or bei ate indicated b	h the United an envelope ing facsimile elow.	
Dayton, OH 454	01-8801						(D	repositor's name)
			_					(Signature)
			L					(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	:	ATTORNEY DOCKET NO. CONFIRMATION		пол по.	
10/721,034	11/24/2003		T. Douglas Mast		END-5042USCIP 4797		7	
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APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	EFEE	TOTAL FEE(S) DUE \$1810		E DUE
nonprovisional	NO	\$1510	\$300	3 0	\$0		0//16	5/2009
EXAM		ART UNIT	CLASS-SUBCLASS					
ROY, BA		3737	600-439000					
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563). Change of correspondence address (or Change of Correspondence Address form FTUOSH 212) attached. "Fee Address" indication (or "Fee Address" Indication form FTUOSH4T; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			(1) the names of up to or agents OR, alternati (2) the name of a sing registered attorney or	ame of a single firm (having as a member a lattorney or agent) and the names of up to departed attorneys or agents. If no name is				
PLEASE NOTE: Un recordation as set fort (A) NAME OF ASSI	less an assignee is ident h in 37 CFR 3.11. Comp GNEE	ified below, no assignee pletion of this form is NO	THE PATENT (print or ty data will appear on the p T a substitute for filing an (B) RESIDENCE: (CITY	natent. If an assign assignment. A and STATE OR	COUNT	TRY)		
4a. The following fee(s) Issue Fee	are submitted:	4	 b. Payment of Fee(s): (Plest A check is enclosed. 	ase first reapply a	ny prev	dously paid issue fee	shown above)	
	o small entity discount p	permitted)	Payment by credit car					
Advance Order -	# of Copies		The Director is hereby overpayment, to Depo	y authorized to cha osit Account Numb	rge the	required fee(s), any de (enclose a	ficiency, or cre n extra copy of	edit any f this form).
5. Change in Entity Sta	tus (from status indicated is SMALL ENTITY statu		☐ b. Applicant is no lon	ger claiming SMA	LL EN	FITY status. See 37 C	FR 1.27(g)(2).	
NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accepte tes Patent and Trademark	d from anyone other than to Office.	the applicant; a reg	istered.	attorney or agent; or th	ne assignee or o	other party in
Authorized Signature				Date				
Typed or printed name			Registration No.					
This collection of inform an application. Confiden submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450.	CFR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR	on is required to obtain or 1.14. This collection is es depending upon the indi- e Chief Information Offic COMPLETED FORMS T	retain a benefit by timated to take 12 vidual case. Any co er, U.S. Patent and O THIS ADDRES	the pub minuter omment Trader S. SEN	lic which is to file (and s to complete, including s on the amount of tit mark Office, U.S. Dep. D TO: Commissioner	I by the USPTo g gathering, po me you require artment of Cor for Patents, P.O.	O to process) reparing, and to complete nmerce, P.O. O. Box 1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/721,034	11/24/2003	T. Douglas Mast	END-5042USCIP	4797	
75	90 04/16/2009		EXAM	UNER	
Mark P. Levy			ROY, BAISAKHI		
Thompson Hine Ll	P	ART UNIT	PAPER NUMBER		
P.O. Box 8801 Dayton, OH 45401	-8801	3737 DATE MAIL ED: 04/16/2009			

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)				
10/721,034	MAST ET AL.				
Examiner	Art Unit				
BAISAKHI ROY	3737				

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative

- of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.
- This communication is responsive to amendment filed on 1/5/09.
- The allowed claim(s) is/are 1-32.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - b) \(\subseteq \text{Some* c} \) \(\subseteq \text{None of the:} \)
 - 1. T Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - 3.
 ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. | Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08). Paper No./Mail Date See Continuation Sheet
- 4. Examiner's Comment Regarding Requirement for Deposit
- of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7. ☐ Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. ☐ Other

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 1/5/09, 12/18/08, 10/6/08.

Application/Control Number: 10/721,034

Art Unit: 3737

The following is an examiner's statement of reasons for allowance: in combination with all the elements of the claims, the prior art of record does not teach subtracting a second time-varying signal from a first time-varying signal to derive a time-varying difference signal. While the references are largely directed to instrument structure and operation per se, teaches away from differential imaging of any type. None of the prior art teaches structure or method for the production of ultrasound diathermy time-varying difference signals as opposed to an imaged difference in association with therapeutic treatment of tissue.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BAISAKHI ROY whose telephone number is (571)272-7139. The examiner can normally be reached on M-F (7:30 a.m. - 4p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3737

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRIAN CASLER/ Supervisory Patent Examiner, Art Unit 3737

BR /B. R./ Examiner, Art Unit 3737